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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/492,521	01/27/2000	Hisao Hayashi	KN-43-US	9984

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EXAMINER	
WORKU, NEGUSSIE	
ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/492,521	HAYASHI, HISAO	
	Examiner	Art Unit	
	Negussie Worku	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 January 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-12,14-18 and 20* is/are rejected.

7)☒ Claim(s) *7, 13 and 19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

JEROME GRANT II
PRIMARY EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, is rejected under 35 U.S.C. 102(b) as being anticipated by Funabashi (USP 6,259,113).

With respect to claim 1, Funabashi discloses an image scanner (as shown in fig 1, see col.4, lines 51-52), for use in reading image information, (sheet 1 of fig 2) comprising: conveying means (16 of fig 1), for conveying a manuscript (1 of fig 1), including said image information to be read on a predetermined reading position of a conveying route (arrow shown in fig 1, see col.4, line 57-58); a first light source (2a of fig 1) which is located at one side (top side) of said conveying route and which emits light onto said predetermined reading position from said one side, see (col.4, lines 57-58); a second light source (2b of fig 1) which is located at another side of said conveying route with being opposite to said first light source (2a of fig 1) and which emits light onto said predetermined reading position from said another side opposite to said one side, see col.4, lines 55-58); image information reading means (double side

reading system as shown in fig 1, see col.3, line 1-3), for reading said image information included in said manuscript (film 11 of fig 1, see col.4, lines 9), at said predetermined reading position on said conveying route by light electricity conversion (light source 2a and 2b of fig 1); and light source switching control means (5 of fig 1) for controlling light source switching between said first and said second light sources, (controller 5 of fig 1, see col.5, lines 3-7), to read said image information included in said manuscript, (sheet 1 of fig 2) said light source switching control means (light controller 5 of fig 1) rendering only said first light source ON when said image information is defined by a transmitting light transmitting through said manuscript (11 of fig 1), said light source switching control means (5 of fig 1) rendering only said second light source (2b of fig 1) ON when said image information is defined by a reflected light reflected by said manuscript (film 11 of fig 1).

Claim Rejections - 35 USC § 103

3 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2-20, are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai (USP 5,677,777) in view of Arai et al. (USP 6,335,982).

With respect to claim 2, 8 and 14, Tsai discloses an image scanner (204 as shown in fig 2) for use in reading image information, (scanning original sheet, see col.1, lines 7-10), comprising: a driving side conveying roll (2052 of fig 2, see col.3, lines 12-13), for conveying a manuscript (original document), including said image information to be read; a driven side conveying roll (314 of fig 3, see col.3, line 36-38), which is located above said driving side conveying roll, see col.3, lines 23) and which rotates by rolling contact with said driving side conveying roll (315 of fig 3); driving side conveying roll (315 of fig 3) and said driven side conveying roll (314 of fig 3); conveying roll driving means ("Motor" see col.3, line 54-56), for starting a rotation of said driving side conveying roll (315 of fig 3) light-electricity conversion means (24 of fig 2, see col.3, lines 4-6), for carrying out light-electricity conversion of said image information per one line in a main-scanning direction of said manuscript from a side of one surface of said manuscript at a reading position on a conveying route when said driving side conveying roll is started to rotate by said conveying roll driving means (315 of fig 3, see (col.3, line 54-55), and said manuscript is thereby started to move toward the sub-scanning direction between said driving side and said driven side conveying rolls, see col.3, lines 53-56), said reading position existing downstream of said conveying route from the rolling-contact position by a predetermined distance, see (col.3, lines 55-58); a first light source (2021 of fig 2) for emitting light onto said reading position from a side of another surface of said manuscript opposite to said one surface thereof; a second light source (2022 of fig 2), for emitting light onto said reading position from a side of the same

surface of said manuscript as said one surface thereof, see(col.3, line 22-23); and light source switching control means (selecting device, see col.2, line 47) for selectively rendering either said first light source (2021 of fig 2) or said second light source (2022 of fig 2), ON to read said image information included in said manuscript, dependent on whether said image information is defined by a reflected light reflected by said manuscript or by a transmitting light transmitting through said manuscript, see (col.2, lines 44-53).

Tsai does not disclose a manuscript sensor for detecting said manuscript when a head of said manuscript arrives at a position near the rolling-contact position.

However, Arai et al. discloses a manuscript sensor (sensor 7 of fig 1, detect sheet 2 of fig 1), for detecting said manuscript (sheet 2 of fig 1) when a head of said manuscript arrives at a position for scanning.

Since, Tsai and Arai both are directed to same filed of endeavor, namely image processing and document inspecting apparatus. The purpose of having a manuscript or document sensor for detecting of a manuscript when a head of said manuscript is arrives at a position for scanning could have been recognized by Tsai as set forth by Arai et al.

It would have been obvious to insert sensor 7 of fig 1, of Arai et al. In front of document tray 203 of fig 2, and close to the surface of the sheet for the purpose of detecting or sensing the position of sheet if the sheet is in position to be read by

scanner. The reason for doing so is for saving time and energy that scanner waste in case the reader run out of sheet on the platen or feed tray.

With respect to claims 3, 9 and 15, Tsai discloses an image scanner (as shown in fig 2), further comprising an upper housing unit (a housing where light source 2021 is positioned, see fig 2), in which said driven side conveying roll, (315 of fig 3) said second light source (2022 of fig 2), and said light electricity conversion means (204 of fig 2) are contained, and a lower housing unit (a lower housing where light source 2022 is positioned as a lower housing, see fig 2) in which said driving side conveying roll (315 of fig 3) and said first light source (2021 of fig 2) are contained, said upper housing unit (103 of fig 1) being separated from said lower housing unit, (111 of fig 1) wherein said upper housing unit is capable of reading image information independently.

With respect to claim 4, 10 and 16, Tsai discloses an image scanner (as shown in fig 2), wherein a lower electric component (102 of fig 1) included in said lower housing unit (111 of fig 1) is controlled by an upper electric component included in said upper housing unit, (103 of fig 1) and wherein said upper and said lower housing units are connected by an attachable and removable connector with each other.

With respect to claim 5, 11 and 17, Tsai discloses an image scanner (as shown in fig 2), further comprising an upper housing unit (103 of fig 1) in which said driven side conveying roll, (2051 of fig 2) aid second light source, (2021 and 201 of fig 2) and said

light electricity conversion means (313 of fig 3), are contained and a plurality of mirrors (207, 208 of fig 2) located between said light-electricity conversion means (311 of fig 3) and said reading position, wherein a light path is turned by each of said a plurality of mirrors there between, see (col.3, lines 40-45).

With respect to claim 6, 12 and 18, Tsai discloses every limitation of the claim except an encoder which generates a pulse every time said driven side conveying roll makes a predetermined number of rotations.

However, Arai et al. discloses an encoder (21 of fig 1), which generates a pulse every time said driven side conveying roll makes a predetermined number of rotations, see (col.4, lines 17-20).

Tsai and Arai both are directed to same filed of endeavor, namely image processing and document inspecting apparatus. The purpose of having a manuscript or document sensor for detecting of a manuscript when a head of said manuscript is arrives at a position for scanning could have been recognized by Tsai as set forth by Arai et al.

It would have been obvious to insert sensor 7 of fig 1, of Arai et al. In front of document tray 203 of fig 2, and close to the surface of the sheet for the purpose of detecting or sensing the position of sheet if the sheet is in position to be read by scanner. The reason for doing so is for saving time and energy that scanner waste in case the reader run out of sheet on the platen or feed tray.

With respect to claim 20, Tsai discloses an image scanner (as shown in fig 2), wherein said image scanner, (204 of fig 2) after said manuscript type judging means (sensor 204 of fig 2) have judged whether said manuscript is such a type of manuscript as read by a transmitting light transmitting through said manuscript (transmissive document) or such an another type of manuscript as read by a reflected light reflected by said manuscript, (refractive document) reversibly moves the manuscript until a head of the manuscript reaches said reading position (2033 of fig 2), and then starts conveying the manuscript in said sub-scanning direction to read the manuscript.

Allowable Subject Matter

5. Claims 7, 13 and 19, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respect to claim 7, 13 and 19, an image scanner wherein said reading of said image information being started from the time when said pulse is generated, said reading of said image information being terminated when a predetermined time has passed after said pulse is stopped.

6. Any inquiry concerning this communication or earlier communication from Examiner should be directed to Negussie Worku whose telephone number is (703) 305 5441.

The Examiner can normally be reached on M-F, 9 am - 6 pm if attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, David Moore, can be reached on (703) 308-7452.

The fax phone number for the organization where this application or proceeding is assigned is (703) 306-5406, and any inquiry of general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Negussie Worku

12/02/02

JEROME GRANT II
PRIMARY EXAMINER